Amendments to the Drawings:

Applicants amend FIGS. 4, 10, 11, 12A and 12B herein to add a legend of "Prior Art" to each figure. The attached sheets of drawings reflect changes to these Figures. Formal drawing replacement sheets are provided to replace the original sheets of formal drawings of these Figures. Annotated sheets showing changes are also provided.

Attachments: Replacement Sheets of (4 sheets)

Annotated Sheets for each figure Showing Changes thereto (4 sheets)

REMARKS

Applicants respectfully request reconsideration of this application in view of the foregoing amendments and the following remarks.

Claim Status

Claims 1-78 are pending. Pursuant to a previous election made by Applicants, claims 8-36, 44-72, 74, 75, 77 and 78 have been withdrawn from consideration. Of the claims under examination, claims 1, 37 and 76 are independent in form. Claims 1, 2, 37, 38, 73 and 76 are rejected. Claims 3-7 and 39-43 have been objected to.

Allowable Subject Matter

Claims 3-7 and 39-43 have been indicated as being drawn to allowable subject matter, but are objected to for depending from a rejected base claim.

Objection to the Drawings

The Examiner has objected to FIGS. 4, 10, 11, 12A and 12B, because it is alleged that only that which is old is illustrated. FIGS. 4, 10, 11, 12A and 12B are amended herein to each include a legend of "Prior Art". Formal drawing replacement sheets for each of FIGS. 4, 10, 11, 12A and 12B that reflect these amendments are attached. Annotated drawing sheets for each of FIGS. 4, 10, 11, 12A and 12B that show these amendments (highlighted in red) are also provided. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection to the drawings.

Objection to the Specification

The Examiner has objected to the disclosure for a stated informality and to the title of the invention as not being descriptive. Both the disclosure and the title of the

invention are amended herein as suggested by the Examiner. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objections to the specification.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 37, 73 and 76 were rejected under 35 U.S.C.§ 103(a) as allegedly being unpatentable over U.S. Patent No. 5,331,442 to Sorimachi ("Sorimachi") in view of U.S. Patent No. 5,471,241 to Hieda ("Hieda"). Claims 2 and 38 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sorimachi in view of Hieda further in view of U.S. Patent No. 5,874,988 to Gu ("Gu").

Applicants respectfully disagree with the characterization of the claims and prior art in the stated rejection and respectfully traverse these rejections. Applicants respectfully submit that the claims as pending are drawn to patentable subject matter for at least the following reasons.

The present invention is characterized *inter alia* by detecting the hue difference between adjoining pixels, and enhancing an edge pixel by amplifying an edge luminance signal by a gain determined on the basis of the hue difference. By enhancing an edge pixel in this manner, jaggedness in particular cases such that the edge is the boundary between a red color area and a blue color area as shown in Fig. 12A, and the RGB color filter covers an image sensing element (see page 3, line 6 to page 4, line 10) can be prevented.

In contrast, neither Sorimachi nor Hieda teaches to detect the hue difference between adjoining pixels.

With reference to column 2, lines 20-40, in Sorimachi, the hue detection circuit 35 detects the difference between a maximum and a minimum of the Y, M and C signals. The Y, M and C signals are obtained by converting B, G and R signals (pixel signals) by the END conversion circuit 31 and the color masking circuit 32 (see column 1, lines 17-25). It is well known in the art that, upon such conversion, B, G and R signals are

collectively converted into Y, M and C signals. (Therefore, the Y, M and C signals processed by the hue detection circuit 35 are not signals representing respective pixel values.) Hence, the difference of the signal value between the maximum and the minimum of the Y, M and C signals are not the hue difference between adjoining pixels. Thus, the hue detection circuit 35 does not detect the hue difference between adjoining pixels.

Furthermore, in Sorimachi, the difference between the maximum and the minimum and the difference between the minimum and the development color, are used to determine whether the current development color is a required color or a non-required color (see column 2, lines 21-40). If it is determined that the current development color is a required color, the edge enhancement is performed, whereas if the current development color is not a required color, the edge enhancement is not performed (see column 2, lines 45-50). Therefore, the differences obtained by the hue detection circuit 35 are merely used to determine whether or not to apply edge enhancement to the current development color, and not used in the edge enhancement processing.

Hieda discloses to perform edge enhancement by setting amounts of emphasis of horizontal and vertical edges to the optimum amounts. However, Hieda does not make up the above deficiencies of Sorimachi. Taken individually or in combination, there is no teaching about detecting hue difference between adjoining pixels.

Since the hue differences between adjoining pixels are not obtained, it is naturally impossible to determine a gain on the basis of the hue difference and to perform edge enhancement using so determined gain.

Accordingly, Applicants believe that both the hue difference detector and luminance edge enhancement means of the present invention are not taught, suggested or otherwise rendered obvious by Sorimachi and/or Hieda.

Gu discloses to reduce the gain to be applied to a signal when signal level difference between a histogram of R channel and a histogram of reference is larger than a predetermined value. It is apparent that the hue difference between adjoining pixels can not be detected from the signal level difference between histograms; Gu does not disclose the hue difference detector nor luminance edge enhancement means of the present invention. Thus, Gu does not provide what is lacking from Sorimachi or Hieda.

Dependent Claims:

Applicants have not independently addressed the rejections of the dependent claims because Applicants submit that, as the independent claims from which the dependent claims depend are believed allowable for at least the foregoing reasons, the dependent claims are believed allowable for at least similar reasons. Applicants, however, reserve the right to address such rejections should such response be necessary and appropriate.

CONCLUSION

Accordingly, Applicants respectfully submit that the present invention as recited in the independent claims and the claims depending therefrom, is neither taught nor suggested by, and therefore is neither anticipated nor rendered obvious in view of, Sorimachi, Hieda and/or Gu, taken alone or in combination. That is, Applicants respectfully submit that the present invention as claimed defines patentable subject matter over the prior art of record.

Based on the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections set forth in the August 12, 2005 Office Action and allowance of this application. The Examiner is invited to contact the undersigned at the number provided below should a telephone conference be useful or necessary.

AUTHORIZATION

While no fees or extensions of time are believed due, in the event that an extension of time is required to render this filing timely, such extension is hereby petitioned

and the Commissioner is hereby authorized to charge any fees, or credit any overpayment to Deposit Account No. **13-4500**, Order No. 1232-4727.

Respectfully submitted,
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Dated: November 14, 2005 By: _____
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FIG. 4
(Prior Art)

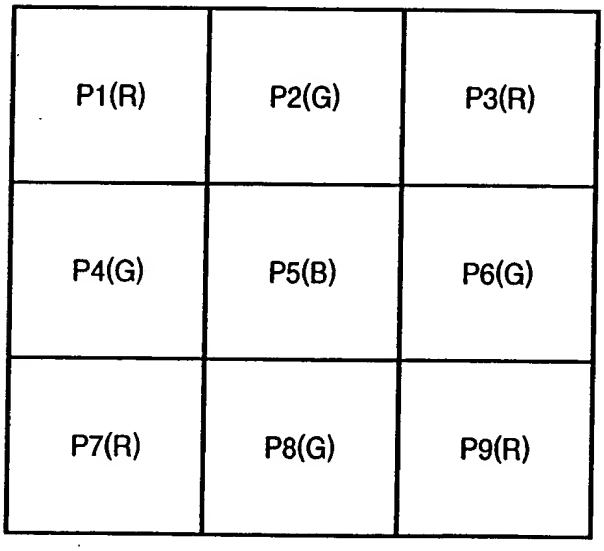

FIG. 10
(Prior Art)

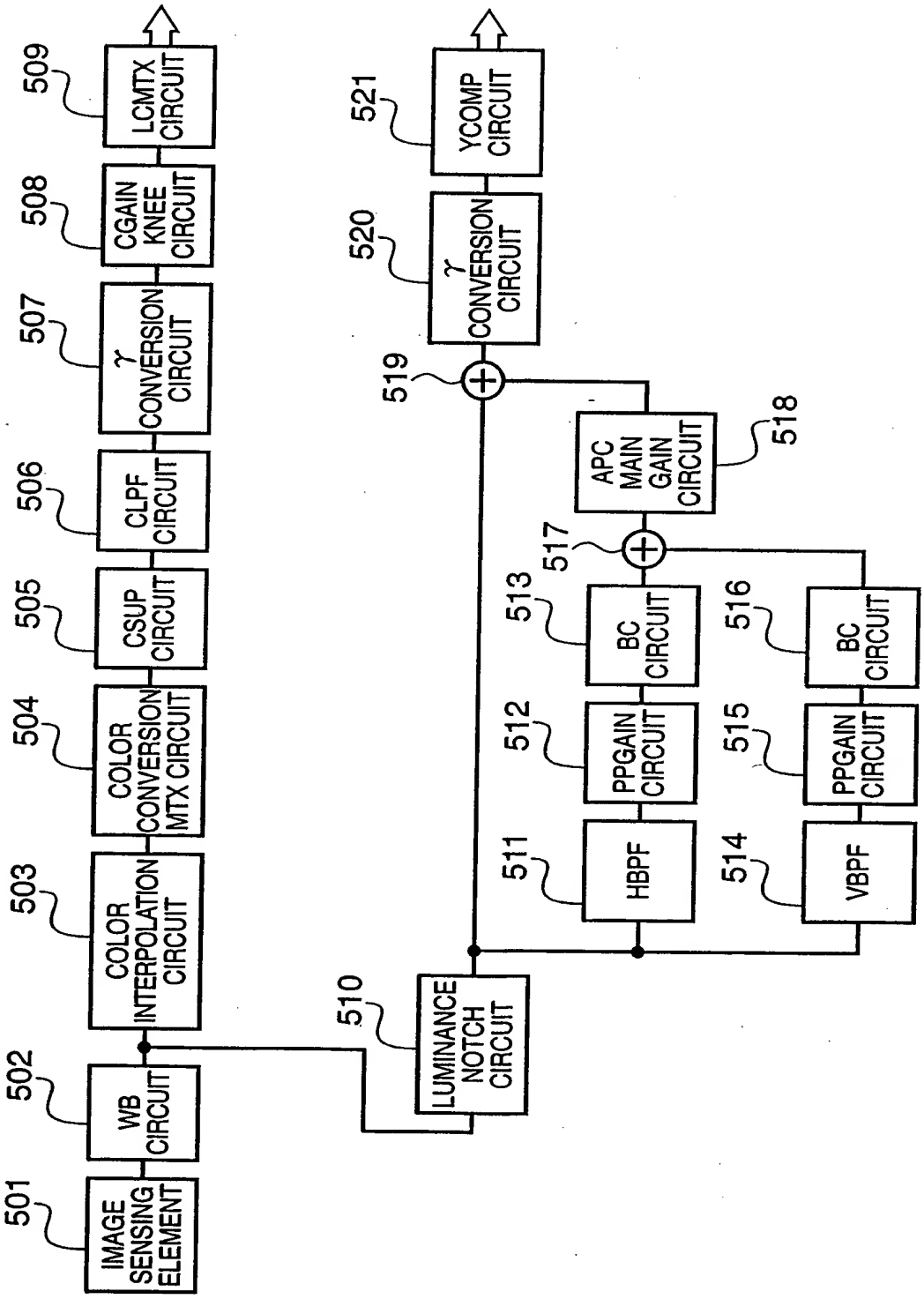

FIG. 11
(Prior Art)

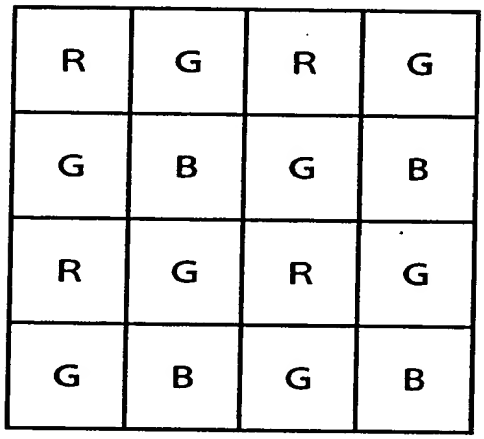

FIG. 12A
(Prior Art)

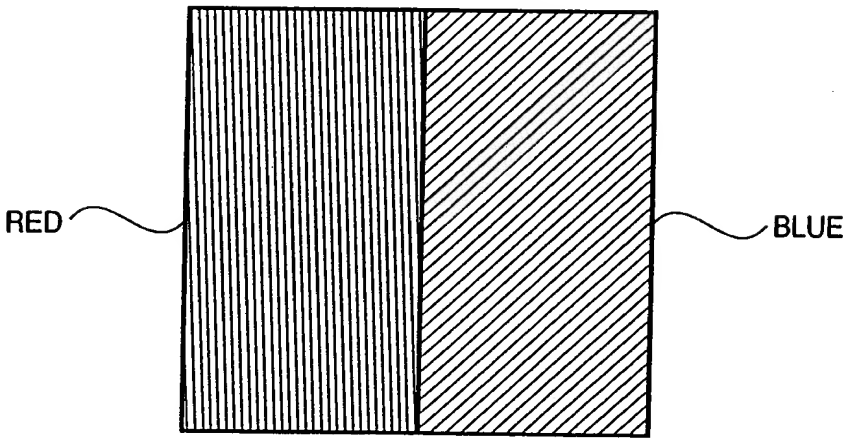

FIG. 12B
(Prior Art)